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S.N. 09/467,530

In the claims:

1. (Currently Amended) In a motor/gear drive having a shaft with a worm gear carried thereon and a free tip end portion with an outer diameter terminating in an end wall, and a housing having a bore formed coaxial with respect to the shaft to be installed therein, the improvement comprising:

a plastic annular sleeve within the bore of the housing concentrically disposed to be positionable about the outer diameter of the tip end portion of the shaft to be installed and to be nominally spaced radially from the outer diameter of the tip end portion, and wherein the sleeve is operable to supportingly engage the outer diameter of the tip end portion of the shaft only in response to radial loads acting to deflect the shaft into contact with the annular sleeve; and

a discrete plastic thrust member within the bore of the housing disposed to be in coaxial registry with the end wall of the shaft to be installed, and operable to be in engagement with the end wall of the shaft to be installed to prevent axial movement of the shaft.

2. The improvement of claim 1 wherein the sleeve is an injection molded sleeve formed in situ within the bore of the housing.

3. The improvement of claim 1 further comprising:

the sleeve having a bore extending therethrough, the bore having an inner diameter larger than the outer diameter of the tip end portion of the shaft to be installed.

Please cancel claim 4 without prejudice.

5. The improvement of claim 4 wherein the thrust member is an injection molded thrust member formed in situ within the bore of the housing.

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6. (Currently Amended) In a motor/gear drive having a shaft with a worm gear carried thereon and a free tip end portion with an outer diameter terminating in an end wall, a housing having a bore formed coaxial with respect to the shaft to be installed therein, the improvement comprising:

a plastic thrust member and a separate and distinct plastic annular sleeve formed within the bore of the housing, the plastic thrust member disposed to be in coaxial registry with the end wall of the shaft to be installed, and operable to be in engagement with the end wall of the shaft to be installed to prevent axial movement of the shaft.

7. The improvement of claim 6, wherein the thrust member is an injection molded thrust member formed in situ within the bore of the housing.

Please cancel claims 8-14 without prejudice.

15. The improvement of claim 5 further comprising:

the thrust member injection molded after installation of the shaft, wherein a portion of the end wall of the shaft defines at least a portion of a chamber to receive injected plastic forming the thrust member during injection molding.

16. The improvement of claim 5 further comprising:

the outer diameter of the tip end portion of the shaft to be installed being larger than a diameter of the thrust member engageable with the end wall of the tip end portion of the shaft.

17. (Currently Amended) A motor/gear drive housing for enclosing a shaft supporting a worm gear for engagement with a pinion gear, the shaft having one end connectible to a prime mover and a free tip end portion with an outer diameter terminating in an end wall, the motor/gear drive housing comprising:

at least one peripheral wall defining an enclosed area with at least one open side, at least one aperture formed within the peripheral wall and engageable to encircle part of the free tip end portion of the shaft to be installed; and

at least one injection molded plastic annular sleeve formed in situ within the aperture and having an inner diameter positionable to encircle the free tip end portion of the shaft to be installed theretrough with at least some clearance therebetween, such that the annular sleeve is operable to supportingly engage the outer diameter of the free tip end portion of the shaft only in response to radial loads acting to deflect the shaft into contact with the annular sleeve; and

a discrete injection molded plastic thrust member formed in situ within the at least one aperture of the housing, the thrust member disposed to be in coaxial registry with the end wall of the shaft to be installed, and operable to be engageable with the end wall of the shaft to be installed to prevent axial movement of the shaft, the outer diameter of the free tip end portion of the shaft to be installed being larger than a diameter of the thrust member engageable with the end wall of the free tip end portion of the shaft, the thrust member injection molded after installation of the shaft, wherein a portion of the end wall of the shaft defines at least a portion of a chamber to receive injected plastic forming the thrust member during injection molding.

Please cancel claims 18-24 without prejudice.

25. (Currently Amended) In a motor/gear drive housing for enclosing a shaft supporting a worm gear for engagement with a pinion gear, the shaft having one end connectible to a prime mover and a free tip end portion with an outer diameter terminating in an end wall, the housing having an aperture formed coaxial with respect to the shaft to be installed therein, the improvement comprising:

at least one of a discrete plastic injection molded annular sleeve and a discrete plastic injection molded thrust member formed in situ within the aperture of the housing, wherein the plastic annular sleeve is positionable to be coaxially sheathing the outer diameter of the free tip end portion of the shaft to be installed and to be nominally spaced radially from the outer diameter of the free tip end portion, the

sleeve operable to supportingly engage the outer diameter of the free tip end portion of the shaft only in response to radial loads acting to deflect the shaft into contact with the annular sleeve, and wherein the plastic thrust member is positionable to be in coaxial registry with the end wall of the shaft, and operable to be engageable with the end wall of the shaft to prevent axial movement of the shaft.

Please cancel claim 26 without prejudice.

27. The improvement of claim 1 further comprising:

the bore having a first portion of a first diameter and an axially endmost, coaxial, second portion of a smaller diameter, a shoulder formed between the first and second portions, and a first gate formed in the housing communicating with the first portion.

28. The improvement of claim 27 further comprising:

a second gate formed in the housing communicating with the second portion.

Please add the following new claims:

29. (Currently New) The improvement of claim 1 further comprising:

means for preventing rotation of the plastic annular sleeve with respect to the housing.

30. (Currently New) The improvement of claim 29 wherein the

rotation preventing means further comprises a gate formed integral with the plastic annular sleeve through the housing.

31. (Currently New) The improvement of claim 1 further comprising:

means for preventing rotation of the plastic thrust member with respect to the housing.

32. (Currently New) The improvement of claim 31 wherein the rotation preventing means further comprises a gate formed integral with the plastic thrust member through the housing.

33. (Currently New) The improvement of claim 6 further comprising: means for preventing rotation of the plastic annular sleeve with respect to the housing.

34. (Currently New) The improvement of claim 33 wherein the rotation preventing means further comprises a gate formed integral with the plastic annular sleeve through the housing.

35. (Currently New) The improvement of claim 6 further comprising: means for preventing rotation of the plastic thrust member with respect to the housing.

36. (Currently New) The improvement of claim 35 wherein the rotation preventing means further comprises a gate formed integral with the plastic thrust member through the housing.

37. (Currently New) The motor/gear drive housing of claim 17 further comprising:  
means for preventing rotation of the plastic annular sleeve with respect to the housing.

38. (Currently New) The motor/gear drive housing of claim 37 wherein the rotation preventing means further comprises a gate formed integral with the plastic annular sleeve through the housing.

39. (Currently New) The motor/gear drive housing of claim 17 further comprising:

means for preventing rotation of the plastic thrust member with respect to the housing.

40. (Currently New) The motor/gear drive housing of claims 39 wherein the rotation preventing means further comprises a gate formed integral with the plastic thrust member through the housing.

41. (Currently New) The improvement of claim 25 further comprising: means for preventing rotation of the plastic annular sleeve with respect to the housing.

42. (Currently New) The improvement of claim 41 wherein the rotation preventing means further comprises a gate formed integral with the plastic sleeve through the housing.

43. (Currently New) The improvement of claim 25 further comprising: means for preventing rotation of the plastic thrust member with respect to the housing.

44. (Currently New) The improvement of claim 43 wherein the rotation preventing means further comprises a gate formed integral with the plastic thrust member through the housing.